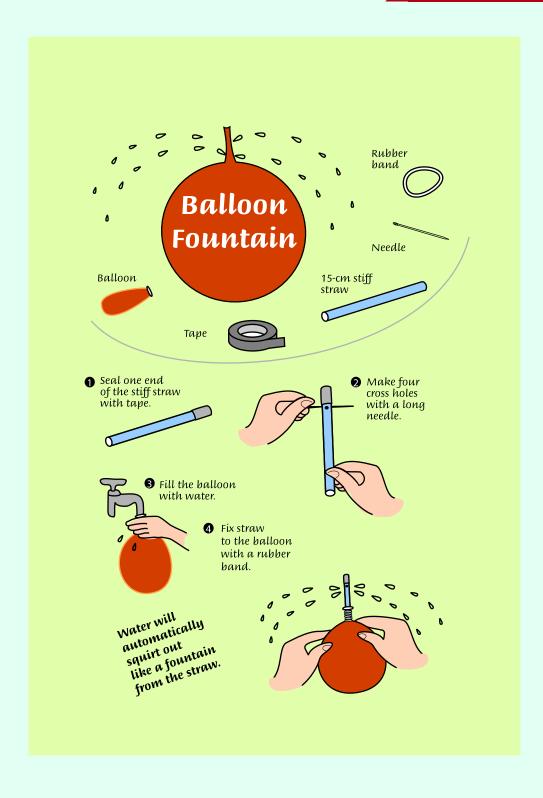
ROCK-PAPER-SCISSORS





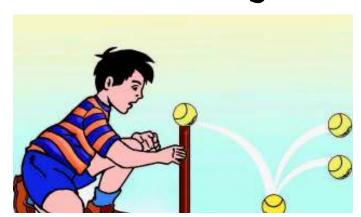
CONCEPT: ARVIND GUPTA; ILLUSTRATIONS: RESHMA BARVE www.arvindguptatoys.com

DIY SCIENCE

Let's experiment

Hands-on learning is a great way of discovering the wonders of science. Here are a few experiments you can try out using easily available materials. Brush up on the basics of physics and chemistry and enjoy being a scientist at home

Why doesn't the ball bounce higher?



Does temperature affect the bounce of a ball? Let's find out.

What you need:

A wooden stake and a tennis ball

What you do:

- Fix the wooden stake in the ground and place a tennis ball on its top.
- Release the ball and observe the height of the first bounce. Do this thrice to get an average of the bouncing height. Mark the height on the stake.
- Place the ball in a freezer for about an hour.
- Again measure the height of the ball's first bounce when released from the top of the stake.

What you find:

The ball does not bounce as high when it is chilled.

Why?

The reason is that rubber is made of thousands of small molecules joined to form long chains. At room temperature, the chains push together and pull apart with ease and this flexibility of the chains allows the ball to bounce high.

When the ball is chilled, the chains of molecules become rigid and the ball cannot bounce as high as it did when it was warm, and the chains were flexible.

Candle rock

You will need:

A blunt knife, a long candle, a long nail, two drinking glasses, a matchbox, two saucers.

asses, a matchbox, two What you do:

* Scrape away some wax from the flat end of the candle with a blunt knife to expose the wick.

* Push a long nail through the exact middle of the candle. Balance the nail across the rims of the two glasses.

* Put a saucer under each end of the candle.

* Ask an adult to light the wicks at both ends, but one wick about 15 seconds after the other.

What do you see?

After a minute, the candle starts to rock up and down like a seesaw!

Why does this happen?

A drop of hot wax falls from one end of the candle. This end rises because it is a bit lighter. Moments later, a drop falls from the other end of the candle and so it goes

The balance of the candle, that is its centre of gravity, keeps shifting. This results in the candle continuing to rock up and down.



(Content provide by Amrita Bharati)

Use veggies for printing

Make a sideways cut into ladies finger and a beautiful, perfect flower shape is made, ready to stamp onto paper!

Just 2 or 3 ladies fingers, one ink pad in multi-colours and some large pieces of chart paper are required. Simply push down firmly the cut vegetable into the ink until it has transferred enough onto the whole edge, then push onto the paper!

Cut card to size and write/paint a message. It's ready to give.



